

WHAT IS CLAIMED IS:

1. A component of a crank mechanism, incorporated in the crank mechanism that converts reciprocating motion of a piston to rotary motion by means of a crank pin, a crank arm and a crank shaft via a connecting bar, wherein said component has a hydrogen content of no more than 0.5 ppm.

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2. A component of a crank mechanism, incorporated in the crank mechanism that converts reciprocating motion of a piston to rotary motion by means of a crank pin, a crank arm and a crank shaft via a connecting bar, wherein said component contains austenite grains having a grain size number exceeding 10.

3. A component of a crank mechanism, incorporated in the crank mechanism that converts reciprocating motion of a piston to rotary motion by means of a crank pin, a crank arm and a crank shaft via a connecting bar, wherein said component has a fracture stress value of no less than 2650 MPa.

4. A support structure in a crank mechanism that converts reciprocating motion of a piston to rotary motion by means of a crank pin, a crank arm and a crank shaft via a connecting bar, the support structure having a plurality of bearings arranged therein, each said bearing including an inner member, an outer member and a plurality of rolling elements, wherein in at least one of said bearings, at least one of said inner and outer members and said rolling elements has a hydrogen content of no more than 0.5 ppm.

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5. The support structure in a crank mechanism according to claim 4, wherein at least one of said bearings arranged in said support structure is a bearing that is located at an end portion of said crank shaft to rotatably support said crank shaft.

6. A support structure in a crank mechanism that converts reciprocating motion of a piston to rotary motion by means of a crank pin, a crank arm and a crank shaft via a connecting bar, the support structure having a plurality of bearings arranged therein, each said bearing including an inner member, an outer member and a plurality of rolling elements, wherein in at least one of said bearings, at least one of said inner and outer members and said rolling elements contains austenite grains having a grain size number exceeding 10.

7. The support structure in a crank mechanism according to claim 6, wherein at least one of said bearings arranged in said support structure is a bearing that is located at an end portion of said crank shaft to rotatably support said crank shaft.

8. A support structure in a crank mechanism that converts reciprocating motion of a piston to rotary motion by means of a crank pin, a crank arm and a crank shaft via a connecting bar, the support structure having a plurality of bearings arranged therein, each said bearing including an inner member, an outer member and a plurality of rolling elements, wherein in at least one of said bearings, at least one of said inner and outer members and said rolling elements has a fracture stress value of no less than 2650 MPa.

9. The support structure in a crank mechanism according to claim 8, wherein at least one of said bearings arranged in said support structure is a bearing that is located at an end portion of said crank shaft to rotatably support said crank shaft.